

**CLAIMS**

1. A portable computing device controlled by an operating system, in which, if the  
5 operating system is intact but an internal non-volatile memory drive that is used to boot the  
device to a functional GUI is found to be corrupted, then the non-volatile memory is  
automatically swapped with a temporary RAM drive to enable the operating system to boot.
2. The device of Claim 1 in which the non-volatile memory is a flash memory.
- 10 3. The device of Claim 1 in which the temporary RAM drive allows at least emergency  
voice calls to be made.
4. The device of Claim 1 in which default configuration files are automatically copied to  
15 the RAM drive.
5. The device of Claim 1 in which the corrupt drive is automatically moved to a  
different drive letter to allow subsequent reformatting.
- 20 6. The device of Claim 1 which displays a user notification asking if reformatting  
should take place.
7. The device of Claim 1 which displays a user notification that the temporary RAM  
drive is in use.
- 25 8. The device of Claim 1 which displays a user notification that save options are  
disabled.
9. The device of Claim 1 which displays a user notification that save options are not  
30 available.

10. The device of Claim 1 which displays a user option which, if selected, initiates an attempt to extract data from the corrupt internal flash memory drive.

11. The device of Claim 1 in which the internal non-volatile memory drive is found to be corrupted if any of the following apply:

- (a) existing data cannot be read;
- (b) new data cannot be written;
- (c) user data is corrupt but metadata is not corrupt;
- (d) user data is not corrupt but metadata is corrupt;
- (e) it is in a read-only state.

12. A method of enabling a portable computing device to boot up to a functional GUI when its resident operating system is intact but an internal non-volatile memory drive that is normally used to boot up from is found to be corrupt, comprising the step of automatically swapping the corrupt non-volatile memory drive with a temporary RAM drive to enable the resident operating system to boot.

13. The method of Claim 12 in which the non-volatile memory is a flash memory.

14. The method of Claim 12 in which the temporary RAM drive allows at least emergency voice calls to be made.

15. The method of Claim 12 in which default configuration files are automatically copied to the RAM drive.

16. The method of Claim 12 in which the corrupt drive is automatically moved to a different drive letter to allow subsequent reformatting.

17. The method of Claim 12 in which the device displays a user notification asking if reformatting should take place.

18. The method of Claim 12 in which the device displays a user notification that the temporary RAM drive is in use.

19. The method of Claim 12 in which the device displays a user notification that save options are disabled.

20. The method of Claim 12 in which the device displays a user notification that save options are not available.

21. The method of Claim 12 in which the device displays a user option which, if selected, initiates an attempt to extract data from the corrupt drive.

22. The method of Claim 12 in which the internal non-volatile memory drive is found to be corrupted if any of the following apply:

- (a) existing data cannot be read;
- (b) new data cannot be written;
- (c) user data is corrupt but metadata is not corrupt;
- (d) user data is not corrupt but metadata is corrupt;
- (e) it is in a read-only state.

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23. Operating system software, for a portable computing device comprising an internal non-volatile memory drive that is normally used to boot up the device to a functional GUI, in which the operating system software automatically swaps the non-volatile memory drive with a temporary RAM drive if the non-volatile memory drive is found to be corrupt to enable the operating system software to boot.

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